GOVERNMENT OF THE DISTRICT OF COLUMBIA

District Department of the Environment

Natural Resources Administration
Water Quality Division

May 1, 2013

Mr. Frank Ciambrano
Office of Watersheds
U.S. Environmental Protection Agency Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Mr. Ciambrano:

Enclosed is the Mid-Year 2013 Section 106 grant status report. The activities for this period focused on sample collection and analysis, submission of the 2013 ADB update, preparation of water quality certifications for NPDES and US ACE permits, ground water protection, and the TMDL related activities.

Please let me know if you have any questions.

Sincerely,

Collin R. Burrell
Associate Director

Enclosures

cc: Grant File
Reading File

District Department of the Environment
Natural Resources Administration
Water Quality Division

WATER POLLUTION CONTROL PROGRAM

FY 2013 Clean Water Act § 106 Grant
SEMI-ANNUAL STATUS REPORT

Reporting Period
October 2012 - March 2013

WATER QUALITY DIVISION PLANNING AND ENFORCEMENT BRANCH

A. Implementation

(1) Water Quality Standards

The District of Columbia Water Quality Standards (WQS) are revised every three years with public participation and a public hearing under the authority of the federal Clean Water Act (CWA) and the District of Columbia Water Pollution Control Act of 1984. The proposed revisions will make the standards more robust to protect designated uses as identified in the regulations. The water quality standards play a critical role in implementing various essential purposes and functions under federal CWA, such as determining water quality attainments, National Pollution Discharge Elimination System (NPDES) permits, non-point source programs, total maximum daily loads (TMDLs), and recreational water quality monitoring and notification. It is the District Department of the Environment's (DDOE) goal to continue to update and make available the latest scientific findings in the ambient water quality criteria that are used to restore and protect the quality of the waters of the District.

DDOE Water Quality Division (WQD) initiated the WQS 2013 triennial review process. The latest changes in water quality standards recommended by the US Environmental Protection Agency (EPA) were identified. The draft proposed revisions to the rules have been prepared. The technical review and the review of the proposed changes have been completed for legal sufficiency. The EPA recreational water quality criteria guidance for E. *coli* has been revised. The E. *coli* revisions include recommendations to introduce statistical threshold value (STV) as the magnitude in-place of the sample maximum value for recreational water quality monitoring and the notification and measurement of culture based indicator to colony forming units (cfu) from most probable number (MPN). Recommendati ons to revise the acrolein numeric standard and the inclusion of the pesticide carbaryl, along with its numeric standard, for the aquatic life use have been submitted. As part of the public outreach process stakeholders will provide input.

Additional WQS activities included participating in EPA Region 3 states meetings to utilize new scientific information and discuss issues with neighboring jurisdictions, and conduct research on new data and information to evaluate and interpret for updating the standards. WQD also participated in Potomac River Basin Drinking Water Source Protection Partnership technical meetings, activities, and workshops.

(2) TMDL Related Activities

Chesapeake Bay TMDL

Pursuant to section 303(d) of the CWA, EPA established the Chesapeake Bay-wide TMDL for nutrients and sediment for all impaired segments in the tidal portion of the Chesapeake Bay watershed, on December 29, 2010. As a signatory to the EPA Chesapeake Bay Agreement, the District has been actively working with EPA and the other partner jurisdictions (MD, VA, PA,

WV, NY and DE) to develop the Chesapeake Bay TMDL.

WQD regularly participated in the Bay Water Quality Steering Committee/Water Quality Goal Implementation Team and took an active role in addressing issues that are specific to the District. WQD also provided source data and related information to the Bay Program as needed. For example, in February, 2013, WQD both finalized the Sector Load Management Demonstration Technical Memorandum (including data set) and completed the review of the 2012 *Annual Progress Run* load results for the District.

The quarterly Watershed Implementation Plan (WIP) review discussions and updates to the land-use dataset are currently on-going. District's land use data set updates are intended to improve the accuracy of federal land boundaries and land use information and inform the Phase 6 suite of models for the purposes of: tracking best management practices (BMPs) on federal lands; estimating loads from federal lands; running BMP scenarios on federal lands; and providing the capability for federal agencies to develop and evaluate alternative implementation scenarios.

Fecal Coliform/E. *coli* TMDL Translator

Between 2003 and 2004, DDOE developed and EPA approved a total of 25 fecal coliform based-bacteria TMDLs for the District. These TMDLs need to be revised by expressing the load allocations in "daily" terms (*Friends of the Earth v. EPA 446 F.3d 140 (D.C. Cir. 2006)*). They also require translation from fecal coliform to E. *coli* following DDOE's 2008 adoption of E. *coli* as the bacteria water quality criteria.

Work on Phase I involving data collection and analysis was completed in 2011. Phase II work involving the establishment of the appropriate E. *coli* daily loads for each waterbody with a fecal coliform TMDL is on-going. Draft copies of the revised bacteria TMDLs were issued on February 8, 2013, for public hearing and comments. Responses to all written comments received during the public comment period (which closed on March 25, 2013) will be provided in a comment response document (CRD) that will accompany the submittal to EPA. Upon EPA's approval of the submitted documentation, the final revised TMDL documents and CRD will be made available on DDOE's website.

Toxic Monitoring for TMDL Development

In 1988, the District listed a number of waterbodies for toxics on its 303(d) list, for which TMDLs were subsequently developed. These TMDLs need to be revised by expressing the load allocations in "daily" terms (*Friends of the Earth v. EPA 446 F.3d 140 (D.C. Cir. 2006)*). To fulfill this requirement, EPA has contracted TetraTech, Inc., to develop and implement a monitoring program for collecting data for toxic pollutants in District waterbodies. The collected data will be evaluated to identify toxics of concern and used, where appropriate, to support any decision to either delist some toxics TMDLs, or proceed with establishing new toxics TMDLs. Development of a sampling plan is at an advanced stage and field sampling is expected to begin by mid-April, 2013.

Hickey Run's Total Residual Chlorine Impairment

Hickey Run (WBID - DCTHR01R) was identified on the 2002 District of Columbia's Section 303(d) list as impaired due to total residual chlorine (TRC) from nonpoint sources, and it was expected that a TMDL would be developed by end of December, 2012. Careful evaluation of the sampling data used in the listing revealed that the data was inadequate, and thus could not be used to construct a defensible TMDL. Instead of a TMDL, DDOE plans, and has formally requested EPA's approval to use alternative approaches tailored to Hickey Run's specific circumstances and incorporate improvement measures and adaptive management.

Training and Meetings/Conferences Attended:

DDOE continues to participate in regular meetings and conference calls in the following:

1. Chesapeake Bay Water Quality Steering Committee/Water Quality Goal Implementation Team, including other related Chesapeake Bay TMDL workgroups.
2. Chesapeake Bay Science and Technical Advisory Committee involving considerations toward moving to multiple modeling.
3. On-going national discussions on the "Long-Term Vision for Assessment, Restoration, and Protection under CWA Section 303(d) Program."

(3) Compliance, Inspection and Enforcement

Background

Currently, there are eleven (11) facilities (see Table 1) in the District which have been issued site-specific industrial permits by EPA under the NPDES industrial permits. A wastewater treatment plant (WWTP) operated by DC Water (previously known as District of Columbia Water and Sewer Authority – (DC WASA)) continues to be the major discharger. The WWTP, along with other industrial NPDES permitted facilities, are frequently inspected to insure compliance with permit conditions and the District's WQS.

In addition to NPDES individual permitted facilities, there are several industrial facilities that have been included under a Multi-Sector General Permit (MSGP) issued by EPA. The District Department of Environment Water Quality Division inspects certain of these facilities on a case-by-case basis to insure compliance with their permit conditions.

Table 1
NPDES Permitted Facilities in the District of Columbia

Permittee/Facility	Permit No	Current Status	Inspection Frequency

Washington Aqueduct – Dalecarlia Plant	DC0000019	Major	once a year
Potomac Electric Power Company (PEPCO), Benning Road[¥]	DC0000094	Major	once a year
D.C. Water and Sewer Authority (WASA), Blue Plains AWTP	DC0021199	Major	once a year
Gen*On* Potomac River LLC (Formerly Mirant)[¥]	DC0022004	Major	once a year
Government of the District of Columbia – MS4	DC0000221	Major	varies
CMDT Naval District Washington, DC	DC0000141	Minor	once every 3 years
Super Concrete Corporation	DC0000175	Minor	once every 3 years
John F. Kennedy Center for the Performing Arts	DC0000248	Minor	once every 3 years
Washington Metropolitan Area Transit Authority (WMATA)	DC0000337	Minor	once every 3 years
General Services Administration (GSA)-NCR HOTD (Central Heating Plant)	DC0000035	Minor	once every 3 years
World War II Veterans Memorial	DC0000345	Minor	once every 3 years
Walter Reed Army Medical Center[¥]	DC0000361	Minor	once every 3 years

Note: [¥] The facility has applied to EPA to terminate the permit.

Inspections

WQD conducts periodic compliance inspections of facilities that have been issued an NPDES permit. Compliance inspections are recognized as a vital part of the District's NPDES program. Appropriate enforcement actions are recommended for violations and/or deficiencies noted during the compliance inspections. Inspection violations/ deficiencies which do not require a formal enforcement action are handled at the time of the inspection.

The objective of the NPDES Compliance Inspection Program (CIP) is to provide a level of inspection coverage necessary to assess permit compliance and develop enforcement documentation, where warranted. The District's NPDES CIP generally conducts only Compliance Evaluation Inspections (CEI), but may perform Compliance Sampling Inspections (CSI), if required. The CEI is an inspection designed to verify a permittee's compliance with applicable permit effluent limits, self-monitoring and reporting requirements, and compliance schedules. A CEI involves report and records reviews; visual observations of the facility; and an evaluation of the treatment systems, effluent, receiving waters and disposal practices. The CEI may or may not be a sampling inspection in which sample types other than those required for permittee self-monitoring are collected.

WQD conducted inspections at the facilities in Table 2. These facilities are authorized, or expected to be authorized, under the NPDES general permits, such as Construction General Permit or MSGP.

Table 2
Industrial Facilities

Permittee/Facility	Permit No

Permittee/Facility	Permit No
Super Concrete Corporation	DC0000175/ DCR05AA05
Vulcan Materials Company (Concrete Processing)	Unpermitted
DC Water Outfall 019 (Construction)	Unpermitted
Super Salvage Inc. (Metal Recycling Plant)	Unpermitted
National Park Service - Rock Creek Park Maintenance Yard	DCR05A875
Wal-Mart on Georgia Ave. (Construction)	DCR05AA04
Monumental Concrete Joint Venture (Concrete Processing)	DCR05AA15

Review and Certification of Draft EPA NPDES Permits

The District is not a delegated state under EPA's NPDES program and therefore does not issue discharge permits. Draft NPDES permits prepared by the EPA are reviewed for certification by WQD for completeness and compliance with both Federal and District laws and WQS, in accordance with Section 401 of the CWA. WQD may require changes in a draft permit so as to comply with the applicable more stringent District laws and standards. Changes in draft permits may also incorporate comments received from various stakeholders during the public comment period, the announcement of which is made in one or more of the District's local newspapers. The announcement for public comments is a joint venture by both the District and EPA. Final permits are issued for a five year period, but contain re-opener clauses in case facility conditions and/or WQS or regulations change. WQD did not review and/or certify any draft NPDES permit from EPA.

Protecting Water Quality on a Watershed Basis

EPA and WQD develop an annual Compliance Monitoring Strategy (CMS) and work plan that identifies and plans different types of inspections to be conducted in a year. The CMS covers both individual and general permitted facilities. WQD started implementing the FY2013 CMS by conducting inspections as presented in Table 2 above. The Annual CMS Report for FY2012 was submitted to EPA.

Review and Certification of Section 404 Permits (Wetland Protection)

WQD reviews and certifies permits issued by the U.S. Army Corps of Engineers (USACE) – Baltimore District under Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the CWA, as published in the March 12, 2007 Federal Register, Final Notice of Issuance, Reissuance, and Modification of Nationwide Permits (NWPs)(72 FR 11090). The District has a policy of no net loss of wetlands, stream areas, and functions within its jurisdictional boundaries.

To achieve this goal, WQD reviews all activities and construction projects that may impact wetlands and streams in the District. USACE issues dredge and fill permits after making a jurisdictional determination with regard to what constitutes " waters of the United States" including jurisdictional wetlands. WQD reviews the delineation report, jurisdictional determination, and permit for completeness and compliance with both federal and the District's laws, and the District's WQS. Based on the results of the review, WQD may certify or deny

certification of the permit. Wetlands that do not fall under federal jurisdiction may still fall under the jurisdiction of the District.

Although the purpose of the review process is to avoid and minimize impacts, it is anticipated that some projects that may impact wetlands and streams may be allowed to proceed. These projects include water dependent projects and projects for which there is no practicable alternative. Mitigation is always required for permanent impacts associated with these types of projects. Mitigation of impacts to wetlands and streams are considered in accordance with the following sequence:

i. Avoidance: Modification of the scope of the proposed activity, or construction to completely avoid the potential impacts to the wetland or stream.

ii. Reduction/minimization: Reduction of the necessary impacting activity to the greatest extent practicable.

iii. Restoration: Rectifying the impact by repairing, rehabilitating, or restoring the affected wetland or stream following completion of the activity or construction.

iv. Compensation: Compensating for the impact to the wetland or stream by creating or enhancing an alternative wetland/stream.

Table 3 lists projects reviewed and/or certified. In addition to dredge and fill permits reviewed and certified WQD conducted inspections at the following sites that had waters of the District of Columbia and jurisdictional wetlands: Monumental Concrete Plant; St. Elizabeth's Hospital, West Campus; Canal Park/4460 McArthur Blvd NW; Fredrick Douglass Memorial Bridge; and Anacostia Riverwalk Trail Project.

Table 3
Dredge and Fill Permits reviewed and/or certified by WQD

Permittee	Certification Number	Project Description
District Department of the Environment	WQC DC-12-013	Construction of a stream restoration project by regenerative stormwater conveyance (RSC) method in unnamed tributary of Broad Branch Creek, NW in Washington, DC.
Commodore Seafares Yacht Club	WQC DC-12-014	Replacement of damaged decking from Docks G and C in the Anacostia River at 1950 M Street, SE, Washington, DC.
Federal Highways Administration Eastern Federal Lands Highway Division	WQC DC-12-015	Enhancement of a portion of Rock Creek at West of intersection of R Street, NW, and Sheridan Circle, NW, in Rock Creek Park, Washington, DC.
District Department of the Environment, Fish and Wildlife Division	WQC DC-12-016	Installation of temporary fencing and to plant *Vallisneria Americana* in the Anacostia River along the shoreline of Diamond Teague Park, east of the intersection of Potomac Avenue NE and First Street NE, Washington, DC.
District Department of the Environment, Fish and	WQC DC-12-017	Installation of temporary fencing and to plant *Vallisneria Americana* in the Anacostia River, south of Heritage Island

Permittee	Certification Number	Project Description
Wildlife Division		and north of the East Capitol Street Bridge at the crossing of the Anacostia River, Washington, DC.
Office of the Deputy Mayor for Planning and Economic Development	WQC DC-12-018	Construction of piers and docks in the Washington Channel along Water Street and Ohio Drive, SW, Washington, DC.
Federal Highways Administration Eastern Federal Lands Highway Division	WQC DC-12-020	Stabilization and enhancement of a portion of Rock Creek, west of the intersection of R Street, NW and Sheridan Circle, NW in Rock Creek Park, Washington, DC.
Pepco Holdings, Inc.	WQC DC-13-001	Conduction of an ecological assessment including analytical sediment sampling of approximately 55 subsurface locations in the Anacostia River, in Washington, DC.
National Zoological Park	WQC DC-13-002	Construction of stone riprap for outfall protection in Rock Creek at the National Zoo, 3001 Connecticut Avenue, NW Washington, DC.

(4) Groundwater Protection

Summary

A joint funding agreement (JFA) between DDOE and USGS is being negotiated.

The groundwater protection program provides regulatory oversight to 16 facilities including the Washington Navy Yard, Spring Valley, and Joint Base Anacostia-Bolling.

Draft District Well Regulations are undergoing an internal review. The regulations specify the construction, operation, maintenance and abandonment standards for wells permitted in the District, and define the responsible party for all wells constructed here. Geothermal wells are also addressed at length.

WATER QUALITY DIVISION MONITORING AND ASSESSMENT BRANCH

A. Management

The Monitoring and Assessment Branch (MAB) prepared its calendar-year 2013 monitoring schedule to coincide with MWCOG's regional monitoring subcommittee timetables.

Monitoring staff continued to represent the District of Columbia on relevant Chesapeake Bay Program subcommittees and workgroups. Monitoring staff also attended MWCOG Regional Monitoring Committee meeting, in November 2012. Participation in these meetings facilitates the coordination of some of the Branch=s activities with regional water quality monitoring groups.

B. Ambient Monitoring

(1) Sample Collection

During this grant year, MAB collected samples at the stations in its ambient water quality monitoring network. Samples were collected as scheduled (See Table 4). The number of water samples collected through March 2013 totaled one thousand two hundred forty-eight (1,248). Nine hundred fifty-three (953) of these samples were delivered to the MAB laboratory at Fort Meade for analysis, two hundred (200) were delivered to the MAB laboratory at Blue Plains WWTP and ninety-five (95) biological samples were preserved and stored for delivery to a contractor for taxonomic identification (Tables 5 thru 6).

Table 4
FY 2012 Sample Collection Dates
October 1, 2012 – March 31, 2013

POTOMAC RIVER	ANACOSTIA RIVER	COMBINED RUN[#]	ANACOSTIA TRIBUTARIES	NORTHWEST TRIBUTARIES
Oct 09 12	Oct 15 12	Oct 01 12	Oct 02 12	Oct 16 12
Nov 13 12	Nov 19 12	Not Scheduled	Nov 05 12	Nov 06 12
Dec 10 12*	Dec 11 12	Not Scheduled	Dec 03 12	Dec 04 12
Jan 14 13	Jan 15 13	Not Scheduled	Jan 07 13	Jan 08 13
Feb 11 13	Feb 12 13	Not Scheduled	Feb 04 13	Feb 05 13
Mar 11 13*	Mar 12 13	Mar 25 13	Mar 04 13	Mar 05 13

* Coordinated split sample collection date
[#] Samples are not collected during the months of November to February

Table 5
Number of Water Samples Collected and Number of Analyses Performed in the First Quarter of FY 2013

Date	Sampling Run	No. Of Water Samples Collected			No. Of Analyses Performed
		MAB (Ft. Meade)	MAB (Blue Plains)	BIO	MAB (Ft. Meade)
OCT 01 12	Combined Run	13	6	0	19
OCT 02 12	Anacostia Tribs	45	8	2	72
OCT 09 12	Potomac River	38	7	8	72
OCT 15 12	Anacostia River	50	11	8	77
OCT 16 12	Northwest Tribs	43	6	3	70
NOV 05 12	Anacostia Tribs	38	7	2	44
NOV 06 12	Northwest Tribs	35	6	3	43
NOV 13 12	Potomac River	27	6	3	36
NOV 19 12	Anacostia River	43	12	6	44
DEC 03 12	Anacostia Tribs	40	8	2	44
DEC 04 12	Northwest Tribs	31	4	1	44
DEC 10 12	Potomac River	43	11	5	61
DEC 11 12	Anacostia River	43	12	6	44
SUB-TOTALS		**489**	**104**	**49**	**670**

Table 6
Number of Water Samples Collected and Number of Analyses Performed in the Second Quarter of FY 2013

Date	Sampling Run	No. Of Water Samples Collected			No. of Analysis Performed
		MAB (Ft. Meade)	MAB (Blue Plains)	BIO	MAB (Ft. Meade)
JAN 07 13	Anacostia Tribs	42	7	1	64
JAN 08 13	Northwest Tribs	34	4	1	54
JAN 14 13	Potomac River	44	8	5	90
JAN 15 13	Anacostia River	50	12	6	60
FEB 04 13	Anacostia Tribs	38	7	2	51
FEB 05 13	Northwest Tribs	28	4	1	39
FEB 11 13	Potomac River	35	8	5	53
FEB 12 13	Anacostia River	31	7	6	40
MAR 04 13	Anacostia Tribs	40	8	2	51
MAR 05 13	Northwest Tribs	30	4	1	36
MAR 11 13	Potomac River	44	11	9	66
MAR 12 13	Anacostia River	35	10	7	43
MAR 25 13	Combined Run	13	6	0	20
SUB-TOTALS		**464**	**96**	**46**	**667**
GRAND TOTALS		**1248**			**1337**

(2) Sample Processing and Laboratory Analysis

MAB staff performed one thousand two hundred forty-eight (1,248) separate analyses on collected samples.

(3) Biological Sampling

The monitoring program has continued to collect surface phytoplankton samples at selected stations. Since July 1990, MAB has collected zooplankton samples based on its revised zooplankton sampling protocol. Two stations on the Potomac River and one station on the Anacostia River have been sampled on a monthly basis, using the revised protocol. MAB's biological sampling period is from March through August.

The primary purpose for conducting a stream survey assessment is to allow a cost effective method of assessing the habitat, fishability, and biological integrity of streams and rivers in the District. Twenty-five tributaries are sampled for the biological stream survey. Three core

streams are sampled yearly. The remaining twenty-two streams are separated into first and second rounds of streams. The first round streams are sampled on even calendar years and second round streams are sampled on the odd calendar years. The annual rotation allows all District streams to be sampled once every two years for biological parameters, with the three core streams being sampled annually.

The benthic macroinvertebrate collection and spring habitat assessment period is from March through May. The summer fin-fish and habitat assessments, and fin-fish identification process is conducted from June through August. The 2013 District of Columbia Stream Survey (DCSS) is scheduled to sample the three core streams, Watts Branch (upper/lower), Rock Creek (upper/lower), Hickey Run, and the second round stations, Broad Branch, Dumbarton Oaks, Normanstone Creek, Klingle Valley, Fenwick Branch, Dalecarlia Tributary, Pinehurst Branch, Fort Stanton Tributary, Pope Branch, and Nash Run.

During this period, one core and eight second round streams have been sampled.

All information obtained will be used in the biennial Integrated Report.

(4) Coordinated Split Sampling Program

MAB staff continued to collect and prepare the split sample for the tributaries sampling analyses programs in Maryland and Virginia. MAB also participated in the analysis of split sample program. MAB has collected two split samples during this reporting period (See Table 7).

Table 7
Split Sample Collection Dates

Date	Tributary/Station
Monday, December 10, 2012	Potomac PMS 10
Monday, March 11, 2013	Potomac PMS 10

(5) Continuous Monitoring

The real time monitoring units take a reading every 15 minutes (Table 8). The parameters measured are temperature, dissolved oxygen, pH, specific conductivity, turbidity, and chlorophyll. The readings are used to form a database from which the MAB can make water quality assessments, and calibrate and compare data for the total maximum daily load models (TMDLs) being developed by the WQD.

The water quality probes are periodically cleaned and calibrated to prevent drift and to follow QA/QC protocol.

The real-time monitoring data is available via the DDOE web site using the YSI® econet system.

Table 8
Real-time Monitoring Stations and Dates

Station ID	2012	2013
Upper Anacostia River (ANA 08)	10/01-12/31	02/23- 03/31
Lower Anacostia River (ANA 21)	10/01-10/29*, 11/29-12/31	01/01- 03/31
Upper Potomac River (PMS 13)	10/01-12/31	02/23- 03/31

*Removed for Hurricane Sandy

C. The Annual Data Submission

The District's annual ADB submission required by EPA was sent on March 28, 2013 to the Integrated Report coordinator at EPA. Information collected through December 2012 was included.

D. Fish Tissue Sampling from the District of Columbia Rivers

WQD published a notice of funding available to conduct a fish tissue study on fish to be captured from waters within the boundaries of the District.

E. Education and Public Outreach

During this reporting period, the Water Quality Division has been involved in several projects/collaborations, they include:

$ Three real-time monitoring sites on the Anacostia and Potomac Rivers are currently in operation, two are on the Anacostia River and one on the Potomac River, which are accessible via the internet.

$ DDOE, MDE and EPA, Region III, have formed an interstate workgroup that meets regularly to develop a joint TMDL for trash impairments in the Anacostia. Both jurisdictions are also signatories to a treaty that calls for "Trash Free Potomac Watershed" by 2013.

$ Non-Tidal Workgroup conference calls for non-tidal monitoring stations on Nash Run and Watts Branch.

$ Science & Technical Analysis & Reporting (STAR) team

F. Data Management

The MAB regularly updates data files. The 2012 data, January through December, has been entered on STORET. 2013 data files for E. *coli* are being entered into the database. There were additional Nutrient and TSS water quality data for 2011 that were entered and checked before

inclusion into the database. All data submissions are listed in Table 9.

The files when finalized are transmitted through a protocol set forth by the Chesapeake Bay Program and EPA's STORET guidelines. WQD has not received the final database product from enfoTech. The project of establishing a new eAquaPro application for MAB is ongoing. STORET files will be updated when the transition is complete.

There were 13 data requests during this reporting period. MAB staff participated in activities at the CBP, EPA, and Maryland Department of Natural Resources.

Table 9
Data Submissions

Data Processed	Monitoring And Assessment Branch	CBP Program Transmittal	STORET Transmittal
Potomac River Nutrients	JAN-DEC-11 4 JAN-DEC-12 3 JAN-FEB-13	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11	
Potomac River Field	JAN-DEC-10 4 JAN-DEC-11 4 JAN-DEC-12 4	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11 4	
Potomac River Metals	JAN-DEC-10 4 JAN-DEC-11 4 JAN-DEC-12 3	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11	
Anacostia River Nutrients	JAN-DEC-10 4 JAN-DEC-11 4 JAN-DEC-12 3 JAN-FEB-13	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11 4	
Anacostia River Field	JAN-DEC-10 4 JAN-DEC-11 4 JAN-DEC-12 4	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11 3	
Anacostia River Metals	JAN-DEC-10 4 JAN-DEC-11 4 JAN-AUG-12 3	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11	
Anacostia Tributary Nutrients	JAN-DEC-10 4 JAN-DEC-11 4 JAN-DEC-12	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11 4	
Anacostia Tributary Field	JAN-JAN-10 4 JAN-DEC-11 4 JAN-DEC-12 4	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11 3	
Anacostia Tributary Metals	JAN-DEC-10 4 JAN-DEC-11 4 JAN-AUG-12	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11	

Data Processed	Monitoring And Assessment Branch	CBP Program Transmittal	STORET Transmittal
Northwest Tributary Nutrients	JAN-DEC-10 4 JAN-DEC-11 4 JAN-DEC-12 3	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11	
Northwest Tributary Field	JAN-DEC-10 4 JAN-DEC-11 4 JAN-DEC-12 4	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11 3	
Northwest Tributary Metals	JAN-DEC-10 4 JAN-DEC-11 4 JAN-DEC-12	JAN-DEC-09 4 JAN-DEC-10 4 JAN-DEC-11	

4-FINAL CHECK 3-PARTIAL CHECK F-STORAGE

G. WATER QUALITY ANALYSIS

Surface water quality analysis for various parameters on samples collected by MAB staff were conducted by MAB staff located at EPA's Environmental Science Center (ESC), in Ft. Meade, MD. The samples that are delivered to the ESC continue to be handled with strict adherence to the necessary protocols and maintenance of the integrity of the chain of custody. Samples were analyzed for physical, chemical, and biological parameters in accordance with Standard Methods. The data were recorded and quality assured and were forwarded to MAB staff at 1200 First St., NE Washington, D.C., for entry into the database. A total of 1,337 samples have been analyzed thus far for fiscal year 2013. Details of the samples analyzed are given in Table 10. The quality of the analyses performed was checked using established QC/QA procedures.

Table 10

Total Samples Processed by MAB (Ft. Meade) in FY 2013						
Nutrients		Metals	BOD5	TSS	Micro	Total
Oct 2012	68	120	28	46	48	310
Nov 2012	27	27	27	39	47	167
Dec 2012	30	36	27	45	55	193
Jan 2013	36	120	26	38	48	268
Feb 2013	52	27	26	34	44	183
Mar 2013	56	36	22	50	52	216
Grand Total	269	366	156	252	294	1337

Work Plan

Goal: Clean and Safe Water			
Objective: 2.2 Protect Water Quality			
Sub-Objective: Improve Water Quality on a Watershed Basis			
Work Plan Component: Compliance/Inspection/Enforcement	EPA Contact: Frank Ciambrano	DC Contact: C. McQuale	Program Result Code: 202B06
Program Description: WQD staff perform inspections of NPDES permittee facilities as required. Staff also inspect facilities, commercial and government, for illicit point source discharges and process enforcement actions as necessary.			
Environmental Outcomes (result, effect or consequence-quantitative)	Measures	Outputs (activity or work product-qualitative or quantitative)	Status/Comment
Reduce pollution to surface waters	**WQ-15a and b**: Percent of major dischargers in Significant Noncompliance (SNC) at any time during the fiscal year, and of those, the number, and national percent, discharging pollutant(s) of concern on impaired waters.	**Output:** *Conduct 4 major and 2 minor NPDES compliance evaluation or compliance sampling inspections (CSI). Submit copies of inspection reports performed at NPDES major facilities including analytical data for CSI to NPDES Enforcement Branch Chief (3WO42) Submit an inspection plan/strategy for major and minor permittees with priority inspections highlighted **Activities:** Investigate illicit point source discharges to D.C. waters. Issue notices of violation as necessary in coordination with EPA	1. Seven NPDES inspections were conducted during this period.

Goal: Clean and Safe Water			
Objective: 2.2 Protect Water Quality			
Sub-Objective: Improve Water Quality on a Watershed Basis			
Work Plan Component: TMDLs	EPA Contact: Frank Ciambrano	DC Contact: C. McQuale	Program Result Code: 202B06
Program Description: DDOE Water Quality Division/TMDL Program – Development of TMDLs are the core planning activities of the Water Quality Division. Most of the District's waterbodies are listed as impaired in the District's 303(d) list. WQD has developed over 350 TMDLs over the last several years. WQD staff use a range of tools to develop TMDLs based on various water quality and watershed information. Staff also manage contracts, provide contract support, coordinate various public outreach activities, attend meetings, review and comment on water quality assessment studies, and write TMDL reports.			
Environmental Outcomes (result, effect or consequence-quantitative)	Measures	Outputs (activity or work product-qualitative or quantitative)	Status/Comment
TMDLs are integrated part of the District's water quality management planning (WQMP). This planning effort is part of the District's overall WQMP and will provide a roadmap for restoration of impaired waters in the District. The resulting outcome will be improved water quality in the District.	**WQ-8(a):** Number, and national percent, of TMDLs that are established or approved by EPA (Total TMDLs) on a schedule consistent with national policy. **WQ-8(b)**: Number, and national percent, of TMDLs that are established by States and approved by EPA (State TMDLs) on a schedule consistent with national policy **WQ-21:** Number of water segments identified as impaired in 2002 for which States and EPA agree that initial restoration planning is complete (i.e. EPA has approved all needed TMDLs for pollutants causing impairments to the waterbody or has approved a 303(d) list that recognizes that the waterbody is covered by a Watershed Plan (i.e. Category 4b or	**Output:** **Output:** Develop and submit TMDLs plans targeted for FY 2013. **Activities:** Review policy and technical documents for purposes of providing: 1. Data/information for development of new TMDLs. 2. Technical support with respect to BMP verification protocols as part of post phase 2 WIP milestones tracking. 3. Continued technical support and coordinate with EPA to address Consent Decree related TMDLs in accordance with the July 25, 2011 U.S. District Court decision. a. Public notice and submit to EPA for approval daily load revisions to the bacteria TMDLs subject to July 25, 2011 Court Decision. b. Coordinate with EPA any toxic monitoring efforts to address toxic TMDL revisions needed according to the July 25, 2011 Court Decision	1. In February 2013, WQD both finalized the Sector Load Management Demonstration Technical Memorandum and completed the review of the 2012 *Annual Progress Run* load results for the District. 2. Phase II work involving establishing the appropriate E. *coli* daily loads for each waterbody with a fecal coliform TMDL is ongoing. 3. Draft copies of the revised bacteria TMDLs were issued in February 2013 for public hearing and comment.

	Category 5m).		4. Development of a toxics sampling plan is at an advanced stage and field sampling is expected to begin in April 2013. 5. Hickey Run was identified on the 2002 District of Columbia's Section 303(d) List as impaired due to Total Residual Chlorine (TRC) from nonpoint sources, and it was expected that a TMDL would be developed by end of December, 2012. Careful evaluation of the sampling data used in the listing revealed that the data was inadequate, and thus could not be used to construct a defensible TMDL. Instead of a TMDL, DDOE plans, and has formally requested EPA's approval to use alternative approaches tailored to Hickey Run's specific circumstances and incorporate improvement measures and adaptive management.

Goal: Clean and Safe Water			
Objective: 2.2 Protect Water Quality			
Sub-Objective: Improve Water Quality on a Watershed Basis			
Work Plan Component: Permits	EPA Contact: Frank Ciambrano	DC Contact: C. McQuale	Program Result Code: 202B06
Program Description: WQD staff review draft EPA issued permits for compliance with D.C. Water Quality Standards, coordinates public review comments, and prepares certifications.			

Environmental Outcomes (result, effect or consequence-quantitative)	Measures	Outputs (activity or work product-qualitative or quantitative)	Status/Comment
Restoration of waterbodies and improved water quality.	**WQ-12a:** Percent of non-tribal facilities covered by NPDES permits that are considered current. **WQ-19b:** Number of high priority state and EPA (including tribal) NPDES permits that are issued in the fiscal year. **WQ-13a & b:** Number, and national percent, of facilities covered under either an individual or general permit by type: a) MS-4s and b) industrial storm water.	**Output:** Issue water quality certifications for draft permits issued by the the Region for NPDES permitted facilities projected for FY 2013: Multi-Sector General Permits, Washington Aqueduct, Super Concrete, and JFK Center for Performing Arts. **Activities:** Review technical and regulatory aspects of draft permits for compliance with D.C. Water Quality Standards. Discuss comments on draft permits by DDOE, the permittee and other parties with EPA Region 3. Participate in coordination of public outreach.	1. WQD did not review and/or certify any draft NPDES permit from EPA, for this period.

Goal: Clean and Safe Water			
Objective: 2.2 Protect Water Quality			
Sub-Objective: Improve Water Quality on a Watershed Basis			
Work Plan Component: Water Quality Standards	EPA Contact: Frank Ciambrano	DC Contact: C. McQuale	Program Result Code: 202B06
Program Description: Water quality standards are required to be revised every three years to address the new information and priorities of national, regional and local stakeholders. WQD staff works with EPA in identifying latest changes and policies that can be incorporated in D.C. Water Quality Standards.			
Environmental Outcomes (result, effect or consequence-quantitative)	Measures	Outputs (activity or work product-qualitative or quantitative)	Status/Comment
Improved conditions of water quality.	**WQ-1: a)** Number of numeric water quality standards for total nitrogen and for total phosphorus adopted by States and Territories and approved by EPA, or promulgated by EPA, for all waters within the States or Territory for each of the following waterbody types: lakes/reservoirs, rivers/streams, and estuaries (cumulative 280); and **b)** Number of numeric water quality standards for total nitrogen and for total phosphorus at least proposed by States and Territories, or by EPA proposed rulemaking, for all waters within the States or Territory for each of the following waterbody types: lakes/reservoirs, rivers/streams, and estuaries (cumulative); c) Number of States	**Output:** Submit revised water quality standards package to address latest changes, including changes recommended by the EPA. **Activities:** Identify latest changes in water quality standards recommended by EPA. Prepare proposed revisions to water quality standards. Perform/coordinate technical and legal sufficiency revisions of proposed revisions to water quality standards. Coordinate rulemaking process and public outreach for the proposed changes to water quality standards. **DC Water Quality Standards Triennial Review:**	1. WQD initiated the WQS 2013 triennial review process. 2. Draft proposed rules for revision have been prepared. 3. The EPA recreational water quality criteria guidance for E. *coli* has been revised. The revisions include recommendations to introduce statistical threshold value (STV) as the magnitude in-place of sample maximum value for recreational water

	and Territories supplying a full set of performance milestone information to EPA concerning development, proposal, and adoption of numeric water quality standards for total nitrogen and total phosphorus for each waterbody type within the State or Territory (annual). **WQ-3(a):** Number, and national percent, of States and Territories and authorized Tribes that within the preceding three year period, submitted new or revised water quality criteria acceptable to EPA and reflect new scientific information from EPA or other resources not considered in the previous standards. **WQ-SP-10.N11:** Number of waterbodies identified in 2002 as not attaining water quality standards where standards are now fully attained. (cumulative) **WQ-SP-11:** Remove the specific causes of waterbody impairment identified by states in 2002. (cumulative) **WQSP-12.N11**: Improve water quality conditions in impaired watersheds nationwide using the watershed approach. (cumulative)	For FY 2013 Section 106 Water Pollution Control grant the 2013 DC WQS Triennial Review following activities are planned. <u>Toxics:</u> i) The District plans to revise acute and chronic numeric water quality criteria for Class C waters for Acrolein. ii) Add new constituent Carbaryl and associated numeric water quality criteria for the protection of Class C designated use. <u>Bacteria:</u> i) District plans to revise recreational water quality single sample maximum criteria for monitoring and water quality notification to include statistical threshold value (STV) after EPA's final publication. ii) A related note will be added for the clarification of STV. <u>Region 3 states WQS Coordinators:</u> Participate in Region 3 states meetings to incorporate new scientific information and discuss issues with neighboring jurisdictions. Coordinate input from the stakeholders.	quality monitoring and the notification and measurement of culture based indicator to colony forming units (cfu) from most probable number (MPN). 4. Recommendations to revise the acrolein numeric standard and the inclusion of the pesticide carbaryl, along with its numeric standard, for aquatic life have been submitted.

Goal: Clean and Safe Water			
Objective: 2.2 Protect Water Quality			
Sub-Objective: Improve Water Quality on a Watershed Basis			
Work Plan Component: Water Quality Monitoring	EPA Contact: Frank Ciambrano	DC Contact: N. Shulterbrandt	Program Result Code: 202B06
Program Description: WQD staff collect water samples at fixed station network. Physical tests are conducted in the field for temperature, DO, pH and other parameters. Water samples are delivered to ESC for analysis for bacterial, nutrient, and metals analyses. Stream surveys are also performed at selected waterbodies.			

Environmental Outcomes (result, effect or consequence-quantitative)	Measures	Outputs (activity or work product-qualitative or quantitative)	Status/Comment
Number of D.C.'s Watersheds where: water quality standards are met or improved in at least 80% of the assessed water segments; and all assessed water segments maintain their quality and at least 20% of assessed water segments show improvement above conditions in 2002.	**WQ-5:** Number of States and Territories that have adopted and are implementing their monitoring strategies in keeping with established schedules.	**Outputs:** Submit a report on the number of stream surveys conducted. Report the number of stations where fish tissue was sampled and the number of samples collected. Submit semiannual progress reports on the implementation of the monitoring strategy. Review, update, and submit appropriate quality assurance documents as required by EPA and agency Quality Management Plan **Activities:** Perform sample collections and collect field data at fixed station network sites. Enter quality assured water quality data into CIMS and STORET or databases using established protocols and the new	1. During this period one core and eight second round streams have been surveyed. 2. The implementation of the monitoring strategy is ongoing. 3. CIMS and STORET continue to be updated. 4. WQD published a notice of funding available to conduct a fish tissue study on fish to be captured from waters within the boundaries of the District. 5. WQD is seeking funding

		EPA data node. Coordinate and monitor the progress of the special studies being conducted for the Division. Coordinate activities related to fish consumption advisory. Coordinate with CBP and USGS to have three streamflow gauges installed as part of the non-tidal network. Coordinate the activities related to the fish tissue study. Maintain the real-time monitoring network.	internally to support additional monitoring parameters as part of the non-tidal monitor network collaboration among WQD, CBP and USGS. 6. The real-time monitoring program continues to collect water quality data at 15 minute intervals.

Goal: Clean and Safe Water			
Objective: 2.2 Protect Water Quality			
Sub-Objective: Improve Water Quality on a Watershed Basis			
Work Plan Component: Water Quality Assessment	EPA Contact: Frank Ciambrano	DC Contact: N. Shulterbrandt	Program Result Code: 202B06
Program Description: WQD staff evaluate data collected from ambient monitoring network and assess waterbodies for use attainment. Evaluations and supporting data are entered into a database.			

Environmental Outcomes (result, effect or consequence-quantitative)	Measures	Outputs (activity or work product-qualitative or quantitative)	Status/Comment
Number of D.C.'s Watersheds where: water quality standards are met or improved in at least 80% of the assessed water segments; and all assessed water segments maintain their quality and at least 20% of assessed water segments show improvement above conditions in 2002.	**WQ-7:** Number of States and Territories that provide electronic information using the Assessment Database version 2 or later (or compatible system) and geo-reference the information to facilitate the integrated reporting of assessment data. (cumulative)	Output: Submit annual data and assessment decisions report by April 1, 2013. Submit ADB file output by April 1, 2013. **Activities:** Assess waterbodies based on data collected and water quality standards	1. The annual ADB was submitted in March 2013.

GOAL: Ground water that supports beneficial uses			
OBJECTIVE: Protect ground water as a natural resource by monitoring and maintaining aquifers (including recharge areas) and reducing contaminant loads			
Work Plan Component /Program: Ground Water Protection	EPA Contacts(s): Frank Ciambrano	State Contacts(s): D. Douglas	Program Result Code: 202B06
Program Description: The Ground Water Protection Program (GWPP) seeks to protect ground water for beneficial uses including surface water recharge, drinking water in other jurisdictions and potential use as a raw drinking water resource. Currently, the GWPP is focused on the Anacostia River Watershed. With the great interest in finding solutions to address the contamination in the Anacostia River, it is critical to characterize the ground water flux to the river and provide regulatory oversight to prevent offsite contaminant migration especially from shoreline facilities. The GWPP also coordinates with other federal and local agencies and the public to ensure that issues pertaining to the program are considered especially during policy and decision-making. Updating and passing new regulations also are expected to help to develop a robust framework for ground water protection.			
Environmental Outcomes (result, effect or consequence-quantitative)	Measures	Outputs (activity or work product-qualitative or quantitative)	Status/Comment
Protect human health and the environment by reducing exposure to contaminants in ambient water.	Identify and address at a District of Columbia level important threats to ground water quantity and quality	**Activities:** Establish a Joint Funding Agreement with the U.S. Geological Survey (USGS) to continue to maintain and collect data from the groundwater monitoring network and tide gage. The data will be published in the USGS Annual Water Data Report. The revised groundwater flow model will be completed and published in a Scientific Investigations Report. USGS also will provide technical assistance and training to DDOE to use the model. In addition, USGS will investigate the paleochannels of the Anacostia River to determine if and how they impact groundwater flux to the waterbody. Funding also will be sought from USGS and the Section 604(b) Water Quality Planning Management Grant. Program Support (Items 1 – 7) - 1. Conduct site visits, review and prepare comments on various environmental assessment documents and provide overall regulatory oversight at contaminated sites where ground water is or may be impacted; where contaminated ground water is discharging to surface water bodies or where contaminated ground water is or may be impacting sediments. 2. Review for approval well permit applications. 3. Develop well regulations and update ground water quality standards. 4. Coordinate with other programs within the DDOE for ground water-related issues. 5. Participate in local and regional groups that promote the protection of ground water. 6. Perform public outreach and respond to public inquiries related to ground water.	On-going but only with funding from the USGS and the 604b Grant. A JFA is being negotiated with USGS. Due to a reduction in funding, several activities are being scaled back. A draft is being prepared and the agreement will be signed by DDOE. 1. On going. Oversight provided at several sites including the Washington Navy Yard, Spring Valley and Joint Base Anacostia Bolling. 2. On going. Reviewed and approved 136 applications in private space and 70 applications in public space. 3. On going. Draft District Well Regulations continue to undergo internal review. The regulations specify the construction, operation,

		7. Conduct grant administration.	maintenance and abandonment standards for wells permitted in the District, and define the responsible party for all wells constructed here. Geothermal wells are also addressed at length. 4. On going collaboration with (i) the Toxic Substances Division on cases such as, Spring Valley, Riggs Park, Washington Navy Yard, Joint Base Anacostia Bolling, Walter Reed Medical Center, etc., (ii) the WQD MS4 Program on cases such as, the WASA Hickey Run release, Pepco-Mirant site, etc., and (iv) the WQD NPDES Program on the proposed USEPA Floor Drain Groundwater Discharge Permit and permit issues for the Washington Navy Yard , Amtrak Ivy City, CSXT Benning Yard and various Multi-Sector General Permit applications for sites requiring ground water treatment systems. 5. On going. Coordinate as necessary with the International Ground Source Heat Pump Association, USEPA Office of Water, and other states. 6. Ongoing. Responded to phone calls and emails from environmental consultants, well drillers, interstate counterparts, land owners, and the general public, related to groundwater quality, supply, and contamination. Responded to FOIA requests. 7. On going.

Goal: Clean and Safe Water			
Objective: 4.3. Protect Wetlands			
Sub-Objective: Improve Water Quality on a Watershed Basis			
Work Plan Component: Wetland Protection	EPA Contact: Frank Ciambrano	DC Contact: C. McQuale	Program Result Code: 202B06
Program Description: WQD staff review section 404 permits drafted by the U.S. Army Corps of Engineers (COE) –Baltimore District and issue certifications when appropriate. The program objective is to make sure activities in the District's waters are conducted in a manner that does not violate D.C. water quality standards and to protect wetlands.			
Environmental Outcomes (result, effect or consequence-quantitative)	Measures	Outputs (activity or work product-qualitative or quantitative)	Status/Comment
No net loss of wetlands	**WQ-11** Ensure no net loss of wetlands.	**Output**: Issue water quality certifications for Section 404 program **Activities:** Review project applications. Develop certification conditions. Hold conference calls with COE to discuss comments on permits. Prepare reports assessing current wetlands related activities. Build the Division's capacity as it relates to wetlands monitoring, regulations, and standards.	1. Nine projects were reviewed and/or certified, during this period. 2. Conference calls and face-to-face meetings were held with COE on an as-needed basis. 3. Wetlands regulations have been drafted and commented on by primary stakeholders. Response to these comments is currently been finalized.

Goal 2: Safe and Clean Water – Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.			
Objective 2.2: Objective 2: Protect Water Quality – Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters.			
Subobjective 2.2.1: Improve Water Quality on a Watershed Basis – Use pollution prevention and restoration approaches to protect and restore the quality of rivers, lakes, and streams on a watershed basis.			
Work Plan Component/Program: Enforcement Workyears:	EPA Contact (s): Chris Menen	State Contacts: C. McQuale	PRC: 202B06
Program Description: Initiate actions outlined in the Clean Water Act (CWA) Action Plan aimed to focus our NPDES planning and resources on the most significant sources of water quality impairment. The Office of Enforcement and Compliance Assurance and the Office of Water requested Region 3 to work with DDOE to identify water quality priorities at the national, regional and state level. Strengthening EPA and State Performance work plans focus on individual NPDES program areas to ensure a coordinated and integrated planning process across the permitting and enforcement programs.			

Environmental Outcomes	Measures	Outputs for FY 2013 (October 1, 2012 thru September 30, 2013)	Status/Comment
Reduce and eliminate pollution to surface waters		**<u>OUTPUTS</u>:** Semi-annual reports submitted through the Section 106 grant. **<u>ACTIVITIES</u>:** State implementation of the FY '13 NPDES Permitting and Enforcement workplans. The FY '13focus areas for the District of Columbia are: Compliance Monitoring Strategy and State Review Framework.	1. The Compliance Monitoring Strategy was completed and is being implemented.